# The Tandy® Enhancement Specialists

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#### **DCS Industries**

5265 Hebbardsville Road Athens, Ohio 45701

1-800-537-3539

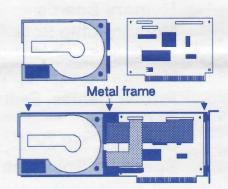


#### **Hard Cards**

Originally hard drives were large devices that were 5.25" in diameter, the same size as the original floppy drives. The size of these drives made it necessary to remove one floppy drive and put the hard drive in its place. A controller card for the drive went in one of the computer's expansion slots, and the drive and controller were attached by cables. New technology allowed hard drives to be made only 3.5" in diameter. These new smaller drives, along with smaller controller cards, made the hard card possible. These drives and controllers were attached to a metal frame, effectively making one card out of them both. Thus the term 'hardcard' came into being. Since the entire card goes into an expansion inside the machine, it eliminates the necessity of giving up one floppy drive. This is very important for Tandy users who only have two floppy bays. Simply snap the hard card into place and close the computer. No extra wiring or soldering is involved.

Our hard cards are compatible with the Tandy 1000, A, SX, SL, SL/2, TX, TL, TL/2, and TL/3, 3000, 4000, 1200, IBM PC, XT, and compatibles. They don't fit the EX, HX, RL, or RLX though we have plenty of drives for those machines later in the catalog. The drive's formatted capacity is listed first, then it's access time. The access time is the average time that elapses between the software giving a command to retrieve the information from the drive and the hard drive's mechanism being positioned to retrieve that information. Lower access times make for faster and smoother computer operation. Perhaps even more important is the rate at which data is actually transferred to and from the drive. This is measured in kilobytes per second. The transfer rate of most drives is about 180K/second. The DCS 42, 85, 105, 120, 130 and 210 megabyte hard cards listed below, use the new IDE Interface yielding lower access times and higher data transfer rates than other types. They can also be used as secondary drives in machines which already have a drive installed, including the TL/2 and TL/3.

Our hard cards are Tandy/IBM switchable and are preformatted in the appropriate machine for PLUG N' PLAY operation. They have a good instruction manual and toll free technical support. A 15 month warranty covers parts, labor, and return shipping to you. Extended warranties can also be purchased. Compare our warranty, service, and price and save. Phone in your order, or use the form at the back of the catalog. To use the form, write the DCS product code and the model of your computer. For example, a 21 megabyte hard card for the 1000 SL would be DCS100-1000SL.



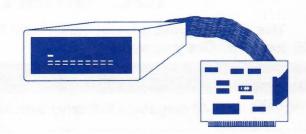
Product C	ode Description	Price
DCS100	21 megabyte hard card 40 ms access tim	e \$229.00
DCS200	32 megabyte hard card 40 ms access tim	e \$239.00
DCS300	42 megabyte hard card 28 ms access tim	e \$299.00
DCS400	68 megabyte hard card 23 ms access time	e \$359.00
DCS405	85 megabyte hard card 16 ms access time	e \$399.00
DCS420	105 megabyte hard card 16 ms access tir	
DCS422	120 megabyte hard card 19 ms access tir	
DCS425	130 megabyte hard card 15 ms access tir	ne \$499.00
DCS435	210 megabyte hard card 15 ms access tir	ne \$699.00
DCS490	EXTENDED WARRANTY. Add 15 percen over 15 months. For example, one year of 42 megabyte hard card would be .15 X (\$2)	t for each additional year of extended warranty for a
	additional years can be purchased.	15%/YR

#### **External Hard Drives For The 1000 EX And 1000 HX**

Yes, we know that Tandy Corporation doesn't sell one, but we do and our satisfied customers tell us that they're great. Our's include drive, controller, and cables, ready for Plug N' Play operation. The included controller snaps onto one of the Plus style expansion slots on the memory board which brings the systems above 256K under the plastic panel on top of the machine. These drives have their own external beige case and are attached by four foot cables. They do not use the connector for the external floppy drive or interfere with them. The 42, 85, 105, 120, 130 and 210 megabyte drives listed below use the IDE interface for super fast access times, and data transfer rates. They can easily be used in IBM PC XT, AT, 286's, 386's, and 486's should you decide to upgrade your system.

These drives need DOS 3.2 or higher to operate. If you don't have one of these versions let us know and we'll send your drive with DOS 3.30 installed. Not a pirated copy! You will also receive the manuals and diskettes for this DOS, all for only \$19.00.

A good manual is included and our technicians are standing by to provide TOLL FREE technical support at 800-637-3402. The warranty is 15 months and covers parts, labor, and return shipping to you. Extended warranties can also be purchased.



Product Co	ode	Description	Price
DCS500	21 megal	oyte drive 40 ms access time	\$349.00
DCS600		byte drive 40 ms access time	\$359.00
DCS700		byte drive 28 ms access time	\$399.00
DCS800		byte drive 23 ms access time	\$425.00
DCS802		byte drive 16 ms access time	\$429.00
DCS810	105 mega	abyte drive 16 ms access time	\$529.00
DCS811		abyte drive 19 ms access time	\$539.00
DCS812	130 meg	abyte drive 15 ms access time	\$579.00
DCS815		abyte drive 15 ms access time	\$699.00
DCS838	DOS 3.30	Installed. Only with EX/HX drives at this price	\$ 19.00
DCS840	year ove	ED WARRANTY. Add 15 percent for each additional r 15 months. For example, an additional one year for a 43 megabyte drive would be .15 X (\$399.00) =	
	\$59.85.	Jp To four additional years can be purchased.	15%/YR

## **Internal Hard Drives For The 1000 HX**

Take the place of internal "B" 720K floppy drive. Complete with controller and instructions. 15 month warranty. Extended warranties (DCS840) available. All are IDE interface for faster access times and data transfer rates. DOS 3.30 [DCS838] available for \$19.00 with these drives.

ode Description	Price
	\$299.00
	\$389.00
	\$449.00
	\$539.00
	\$689.00
	42 megabyte 28 ms drive 85 megabyte 16 ms drive 105 megabyte 16 ms drive 130 megabyte 15 ms drive 210 megabyte 14 ms drive

# External Hard Drives For the Tandy LT1400 and FD1400 & other Laptops

Product Co	ode Description	Price
DCS900	20 megabyte External	\$389.00
DCS910	40 megabyte External	\$689.00

#### **IDE 'Smart' Hard Drive**

This IDE Hard Drive is for the Tandy 1000 TL/2, RL, TL/3, and RLX, using their built in eight bit IDE controller. One year warranty

Product Co	de Description	Price
DCS955	40 megabyte IDE drive with 28 ms access time	\$289.00

#### **IDE Hard Drives, 16 Bit**

The IDE Hard drives for the 4000LX series, 4000DX series, 4016SX, and 4025LX. These are extremely fast drives, using the 16 Bit IDE controller built into the motherboards of these Tandy computers and others such as Packard Bell.

Product C	ode Description	Price
DCS960	40 megabyte IDE drive with 28 ms access time	\$249.00
DCS962	40 megabyte IDE drive with 19 ms access time	\$289.00
DCS965	85 megabyte IDE drive with 16 ms access time	\$349.00
DCS970	105 megabyte IDE drive with 16 ms access time	\$429.00
DCS975	120 megabyte IDE drive with 19 ms access time	\$469.00
DCS980	130 megabyte IDE drive with 15 ms access time	\$489.00
DCS990	210 megabyte IDE drive with 15 ms access time	\$659.00

#### **MFM and RLL Hard Drives**

These are bare hard drives without a controller card. All drives are 3.5" drives and come in a 5.25" mounting frame that can be easily removed. One year warranty.

Product Co	de Description	Price
DCS1000	21 megabyte MFM drive with 40 ms access time	\$189.00
DCS1100	32 megabyte RLL drive with 40 ms access time	\$199.00
DCS1150	43 megabyte RLL drive with 39 ms access time	\$239.00
DCS1200	42 megabyte MFM drive with 23 ms access time	\$289.00
DCS1400	68 megabyte RLL drive with 23 ms access time	\$329.00

#### **Hard Drive Controller Cards**

To order, write the DCS part number and your machine type on the order form. For example, an 8 bit MFM controller for a 1000SX is a DCS1500-1000SX.

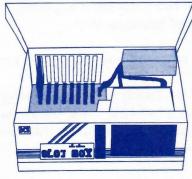
Product Co	de Description	Price
DCS1450	8 to 16 IDE conversion controller card. Use 16 bit 'SmartDrives' in eight bit expansion slots. For all 1000's, PC/XT, compatibles.	\$ 79.00
DCS1460	16 bit IDE hard and floppy controller for 80286's and 80386's without one built in	\$ 39.00
DCS1470	16 bit IDE hard/floppy controller. This controller has its own BIOS and will enable 3000's, IBM AT's, and other 80286's and 80386's to use hard drive types not supported in their setup	\$ 59.00
DCS1500	8 bit MFM controller. Ideal for 10 and 20 meg drives. For the 1000, A, SX, SL, SL/2, TX, TL, TL/2, IBM and compatibles	\$ 79.00
DCS1600	8 bit RLL controller. Ideal for 30 meg drives. For 1000, A, SX, SL, SL/2, TX, TL, TL/2, IBM, and compatibles	\$ 79.00
DCS1700	16 bit MFM hard and floppy controller. For 3000 and 3000HL	\$149.00
DCS1800	16 bit RLL hard and floppy controller. For 3000 and 3000HL	\$159.00
DCS1900	16 bit MFM hard drive only controller. For 3000NL and 4000	\$129.00
DCS2000	16 bit RLL hard drive only controller. For 3000NL and 4000	\$139.00

#### **SLOT BOX**

#### "..provides the ideal upgrade path.." - PCM December 1991

The upgrade so many have hoped for arrives! Insert a card in one of the computers expansion slots to attach slot box and you're ready to go. 16" W X 14 L X 6" H Slot Box sits beside the computer and adds seven IBM PC standard eight bit expansion slots. But there's more. Also includes 200 watt power supply, two 5.25" drive bays, and one 3.5" drive bay. Add a 100 meg hard drive and controller to your machine or VGA card, EMS memory board, and high density floppy. The possibilities are almost unlimited. Will not work with machines using 80286 Express Accelerator Card.

Product Cod	de Description	Price
DCS2120	SLOT BOX for the EX and HX. Attaches by 36" cable. One year warranty.	\$279.00
DCS2130	SLOT BOX for the 1000, A, SX, TX, SL, TL, SL/2, TL/2, RL, TL/3, RLX, IBM PC/XT, compatibles . Attaches by 36" cable. One year warranty.	\$279.00



## **CD-ROM Drives and Disks**

Product Cod	e Description	Price
DCS2150	Internal CD-ROM drive for 1000, A, SX, TX, SL, TL, SL/2, TL/2, SLOT BOX, IBM and Compatibles. Replaces a 5.25" floppy drive. Complete with controller	\$369.00
DCS2155	External CD-ROM drive. For 1000, A, SX, TX, SL, TL, SL/2, TL/2, RL, RLX, SLOT BOX, IBM, and Compatibles. Complete with	0470.00
	controller	\$479.00
DCS2164	CD Disk Bundle. Includes Illustrated Encyclopedia, Reference	<b>0470.00</b>
	Library, Atlas Pack-World Atlas and U.S. Atlas, CD-Game Pack 1.	\$179.00
DCS2166	Comptons Family Encyclopedia	\$179.00
DCS2167	Family Doctor	\$129.00
DCS2168	Guiness Disk of Records	\$ 99.0
DCS2170	Illustrated Encylopedia	\$149.0
DCS2171	Languages of the World	\$149.0
DCS2172	Magazine Rack	\$ 69.0
DCS2173	Microsoft Bookshelf	\$ 99.0
DCS2174	Mixed Up Mother Goose	\$ 49.0
DCS2175	National Geographic Mammals	\$119.0
DCS2176	North American Indians	\$119.0
DCS2177	Plant Doctor	\$ 99.0
DCS2178	Time Table of History- Science and Innovation	\$129.0
DCS2179	American Presidents	\$ 99.0
DCS2179	Hawaii	\$ 99.0

# **Memory Boards**

Product Code	Description	Price
DCS2200	Multifunction board for Tandy 1000 and 1000 A. Includes memory to bring a 128K system to 640K, Clock/Calendar and serial port	\$229.00
	Multifunction board for Tandy 1000 and 1000 A with no memory. Includes Clock/Calendar and serial port. Install your own memory or transfer your memory from a 512K board without the clock / calendar and serial port	\$179.00
	Memory board for Tandy 1000 EX and HX. Brings a 256K system to 640K. Includes two Plus style expansion slots on top of the board to plug additional add-ons into	\$149.00
DCS2425	One Megabyte memory board for 1500 and 2810 Laptops	\$129.00
	Memory board for Tandy 1200. Will bring a 256K Tandy 1200, IBM PC, or compatible to 640K. Yes, we know most memory boards won't work in the Tandy 1200, but this one does	\$189.00

#### **Above 640K Memory Boards**

MicroMainframe 5150T EMS board for the 1000, A, SX, SL, SL/2, TX, TL, TL/2, RL, TL/3, RLX, Panasonic 1650, 1750, and compatibles. Conforms to LIM EMS (Lotus Intel Microsoft Expanded Memory Specifications). How does EMS work? A "peephole" of 16K is created in the 640K of memory DOS can normally use. 16K blocks are shifted down from the EMS board as needed, then shifted back. By using multiple blocks, several megabytes of EMS can be added. Check the program's manual, or the manufacturer to see if it can use EMS. Not to be confused with extended memory which none of the 1000 series can support. This board has a circuit which uses all DRAM chips as 150NS. Faster chips will not speed up the board. The 5150T is the same board sold by Tandy. Includes LIMM EMS 4.0 Software drivers. Please specify what capacity floppy diskette you would like the EMS software drivers on.

Price	Code Description	Product Co
\$159.00	Micromainframe 5150T with no memory installed	DCS2500
\$229.00	Micromainframe 5150T with 1 meg installed	DCS2800
\$249.00	Micromainframe 5150T with 2 meg installed	DCS2900
\$ 49.00	Upgrade set of 8 chips to add memory to the 5150T board which are not filled yet. Each set adds 256K of memory to the board.  Price per set of 8	DCS3125
\$ 79.00	Software upgrade of LIMM 4.0 Standard (for boards purchased with LIMM EMS software version 3.2 standard software)	DCS3140
\$159.00	Micromainframe daughterboard. Attaches to the side of the EMS 5150T board and holds up to an additional two megabytes. This board with no memory.	DCS3147
	5150T board and holds up to an additional two megabytes. This	To order ab

#### 16 Bit EEMS boards

Product Co	de Description	Price
DCS3155	DCS 16 bit EEMS board. Add up to 32 meg of EEMS 4.0 memory your Tandy 3000, HL, NL, 4000, IBM AT, and compatibles. Has	ory to s eight
	sockets for 1 or 4 meg SIMM. This board with no memory.	\$189.00
DCS3158	DCS 16 bit EEMS board with 2 Meg of 80NS memory	\$289.00
DCS3161	DCS 16 bit EEMS board with 4 Meg of 80NS memory	\$429.00
DCS3164	DCS 16 bit EEMS board with 6 Meg of 80NS memory	\$559.00
DCS3167	DCS 16 bit EEMS board with 8 Meg of 80NS memory	\$679.00

## **Memory Chip Sets, RAM Chips**

Product Co	de Description	Price
DCS3190	Chip set 8150 brings a 384K SX, EX, or HX to 640K	\$ 49.00
DCS3195	Chip set 8260 brings a 384K SL to 640K	\$ 49.00
DCS3200	Chip set 8370 brings a TL, TX, TL/2, TL/3 to 768K, SL/2 to 640K	\$ 39.00
DCS3205	Chip set 8480 brings a 3000 NL up to 640K	\$ 39.00
DCS3207	Chip set 8490 brings a 512K 1000 RL to 768K	\$ 39.00
DCS3209	Chip set 8500 brings a 512K 1000 RLX to one meg	\$ 39.00
DCS3215	256K 120NS RAM Chips 100+ \$3.89 ea, 24-99 \$5.50ea 9-23 @	\$6.50ea
DCS3220	256K 100NS RAM Chips 100+ \$4.49ea, 24-99 \$6.50ea 9-23 @	\$7.00ea
DCS3230	256K X 9 SIMM Module Specify 80NS or 100NS	\$ 29.00
DCS3240	1 Meg X 9 SIMM Module Specify 80NS or 100NS	\$ 59.00
DCS3250	4 Meg X 9 SIMM Module 80NS	\$179.00

## **Math Coprocessor Chips**

Product Cod	de Description	Price
DCS3345	Typically, 80286 based computers run their math coprocessor at 2/3 the CPU speed. For example, the eight mHz TL runs the math coprocessor socket at 5.67 mHz. The Math Sprint (TM) socket by DAS Technologies plugs under the math coprocessor and raises its speed. Better yet, it is not limited by the machine's speed. As	
	an example, the same eight mHz TL with a Math Sprint installed can use a 10 mHz math chip at 10 mHz, a 75 percent increase in math processing speed! For the TX, TL, TL/2, TL/3, IBM AT, and compatibles.	\$ 59.00
DCS3350	8087 Math coprocessor for the 1000A, IBM PC, and other 4.77 mHz machines.	\$129.00
DCS3360	8087-2 Math coprocessor for 1000A machines with a PC Sprint installed, 1000 SL, SL/2, SX, eight or 10 mHz 8088-2 or 8086	•
	based machines.	\$159.00
DCS3270	80287-8 math coprocessor for the TX, TL, TL/2, and TL/3.	\$129.00
DCS3380	80287-10 math coprocessor for the 3000, 3000HD, 3000NL, 2500 XL,	
	IBM AT and compatibles to 12 mHz.	\$139.00
DCS3381	80287-12 math coprocessor for the 2500 XL/2, and 80286 compatible	es
20000.	to 16 mHz.	\$139.00

### **Speed Up Solutions**

**PC Sprint.** This upgrade includes both a new microprocessor chip and clock crystal. Does not use an expansion socket. No soldering involved.

Product Code	Description	F	Price
DCS3400	PC Sprint for the original Tandy 1000. 100% increase in speed. PC Sprint for the 1000 A. Makes the machine 70% faster. PC Sprint for IBM PC, XT, and other 4.77 mHz compatibles.	\$	75.00 75.00 85.00

### Speed Up Solutions Continued

NEC V20 and V30 replacement microprocessor chips. These chips by NEC Corporation replaces the Intel 8088, 8088-2, or 8086 CPU in the computer for a 5 to 50 percent increase in processing speed. Does NOT change the mHz of the machine. Simply processes faster at the same mHz. Many new machines such as the Tandy LT1400 come with this chip already installed. We send you the NEC chip. a diagram showing the location of the Intel chip, and a chip puller to remove it with. Not for machines using the PC Sprint or 80286 accelerator boards.

<b>Product Co</b>	de Description	Price
DCS3412	V20 Speed up for IBM PC	\$ 29.95
DCS3414	V20 Speed up for IBM PC XT	\$ 29.95
DCS3420	V20 Speed up for the 1000	\$ 29.95
DCS3422	V20 Speed up for the 1000 A	\$ 29.95
DCS3430	V20 Speed up for the 1000 EX	\$ 29.95
DCS3440	V20 Speed up for the 1000 HX	\$ 29.95
DCS3445	V20 Speed up for the 1000 SX	\$ 29.95
DCS3450	V30 Speed up for the 1000 SL	\$ 34.95
DCS3452	V30 Speed up for the 1000 SL/2	\$ 34.95

#### **Modems and FAX Boards**

Connect to the outside world with a modern from DCS. You can gain access to thousands of freeware programs through local and long distance bulletin boards. These modems are 100% Haves compatible also featuring auto answer and auto dial. They are downwardly compatible which means that a 1200 baud modern will run at 300 baud, and a 2400 baud modern runs at both 1200 and 300 as well. They come with operating software, and are also compatible with Deskmate. The internal modems are for the 1000, A, SX, SL, SL/2, TX, TL, TL/2, RL, TL/3, RLX, 3000 series, 4000 series, IBM PC, XT, AT, and any PC compatible with an eight or sixteen bit slot free. They will not work in the 1000 EX or 1000 HX. Our external modems will work in any Tandy, IBM, or compatible with a serial port, INCLUDING 1000 EX and HX. One year warranty.

Product Co	de Description	Price
DCS3455	FAX/Modem Board sends and receives as 9600 Baud FAX or 2400 Baud Modem	\$159.00
DCS3460	1200 Baud internal modem	\$ 59.00
DCS3470	2400 Baud internal modem	\$ 79.00
DCS3474	9600 Baud internal modem	\$329.00
DCS3480	1200 Baud external modem	\$ 79.00
DCS3500	2400 Baud external modem	\$ 99.00

## **Floppy Drives and Controllers**

Product Cod	e Floppy Controller	Price
DCS3510	DCS superfloppy controller, controls 1.2 and 1.44 Meg drives in the 1000 SX, SL, SL/2, TX, TL, TL/2. Uses one expansion slot, and does not interfere with controller already there.	\$ 89.0
Product Code	360K Floppy	Price
DCS3525	360K 5 1/4" Black internal drive for 1000, A, 1200, IBM, compatibles	\$ 77.0
DCS3530	360K 5 1/4" Grey internal drive for 1000, A, 1200, IBM, compatibles	\$ 79.0
DCS3535	360K 5 1/4" internal drive with GREY faceplate for SX, SL, SL/2, TX, TL, TL/2, TL/3	\$ 99.0
DCS3540 DCS3542 DCS3545	360K external for 1000, A, SX, TX, SL, TL, SL/2, TL/2, and TL/3 360K external for RL Complete 360K 5 1/4" external drive for 1000 EX and HX	\$199.0 \$169.0 \$129.0
Product Code	e 1.2 Meg Floppy	Price
DCS3550	Service of the servic	FIICE
DC53550	1.2 Meg internal for 3000 series, 4000 series, IBM, and compatibles, GREY faceplate. Machine setup must support 1.2 Meg drives. If not, see below.	\$ 99.0
DCS3555	1.2 Meg internal for SX, SL, SL/2, TX, TL, TL/2, IBM, and compatibles includes secondary controller, uses a slot. Can be third drive.	
DCS3557 DCS3560	1.2 Meg external for RL and RLX. Uses only expansion slot 1.2 Meg external for SL, SL/2, TX, TL, TL/2, TL/3, IBM, and compatibl Includes secondary controller, uses a slot. Can be third drive.	\$199.0
Product Code	720K Floppy	Price
DCS3565	720K, 3 1/2" internal drive for 1000, A, SX, TX, 1200, 3000's, 4000's, IBM, and compatibles. Includes black and grey faceplates, and all mounting hardware	\$ 99.0
DCS3570	720K, 3 1/2" internal drive for SL, SL/2, TL, TL/2, TL/3. GREY face-plate, mounting hardware, cables	\$109.0
DCS3575	720K, 3 1/2" external for 1000, A, SX, TX, SL, TL, SL/2, TL/2, RL, TL/3 Includes secondary controller which uses an expansion slot	
DCS3580	720K, 3 1/2" external drive for 1000 EX and HX	\$129.0
Product Code	1.44 Meg Floppy	Price
DCS3585	1.44 Meg, 3 1/2" internal floppy drive for 3000's and 4000's. Includes black and grey faceplates, and all mounting hardware	\$ 99.0
DCS3590	1.44 Meg, 3 1/2" internal for 1000 SX, TX, SL, TL, SL/2, TL/2, TL/3. Includes secondary controller which takes one slot. Also includes all mounting hardware, both grey and black faceplates. Can be used third drive in machines that have space for three internal drives	d as \$159.0
DCS3595	1.44 Meg, 3 1/2" external for 1000 SX, TX, SL, TL, SL/2, TL/2, RL, TL/2 Includes a secondary controller card which uses an expansion slot	3.

#### **Monitors and Video Graphics Cards**

The 1000 series machines have built in video graphics, all can be upgraded, except the 1000, and 1000 A. The VGA cards listed singly and in card/monitor combinations all function in eight or sixteen bit slots with no switching necessary. A VGA card by itself will not run VGA graphics on a lower resolution monitor such as the Tandy CM-5. The card and monitor must both be capable of the same graphics standard. VGA cards and monitors are capable of displaying VGA, EGA, CGA, Hercules graphics. They are not capable of displaying the special Tandy color graphics that the built in adaptors of the 1000 series are. Ours are compatible with the SX, TX, SL, TL, SL/2, TL/2, RL, TL/3, RLX, 3000's, 4000's, 2500 XL, XL/2, IBM PC, XT, AT, 286's, 386's, and 486's. Also the 1000 EX and HX with the SLOT BOX (DCS2120) installed. We use cards with the Tseng Labs chip set for best results in the 1000 series.

Resolution is a measure of the number of dots on the screen and is measured in Horizontal X Vertical such as the 640 X 480 of standard VGA. Higher VGA resolutions exist such as 800 X 600 and 1024 X 768. A program must be written to take advantage of these resolutions. A quick check of the setup or manual will show this. Our higher resolution VGA cards include software which when installed in the DOS being used will push programs to the higher resolutions. Drivers are included for Lotus, Windows, and AutoCad among others. The dot pitch of a monitor is a measure of the holes in the shadow mask on the inside of the tube which keeps dots from being turned on besides those the monitor's electron guns are aimed at. Dot pitches are measured in millimeters (mm) and the lower the pitch the crisper the picture.

Most VGA monitors which can achieve 1024 X 768 resolution do so by interlacing. In this method, some of the horizontal lines of the monitor are scanned in a pass of the beams of its electron guns, then, the ones which were left out in the next pass. Perhaps the odd numbered lines then the even. All of this happens at a speed invisible to the eye. However, under fluorescent lights, a flickering may become noticeable as the frequency of the monitor interacts with that of the lights. The 640 X 480 resolutions are not displayed this way and do not experience this problem. The alternative way of displaying 1024 X 768 resolutions is noninterlaced monitors which are usually very expensive. The VGA Combo-4 has a great price for this type of resolution.

Product Code	Description	Price
200000	VGA Combo-1. 640 X 480 resolution with 16 of 256 colors. Also EGA, CGA, and Hercules. Card is a Tseng labs with 256K installed. Monitor has a .28 dot pitch.	\$489.00
DCS3630	VGA Combo-3. Interlaced 1024 X 768 resolution with 256 simultaneous colors. Also 800 X 600, 640 X 480, EGA, CGA, and Hercules. Card is a Tseng Labs with one megabyte installed.	
	Monitor has a .28 dot pitch.	\$589.00
DCS3632	VGA Combo-4. Noninterlaced 1024 X 768 resolution with 256 simultaneous colors. Also 800 X 600, 640 X 480, EGA, CGA, and Hercules. Card is a one megabyte Tseng Labs. Monitor has a	
	Trinitron tube with a .26 dot pitch	\$689.00
DCS3640	256K Tseng Labs VGA card. Works in eight or sixteen bit slots. 256K of memory installed. 640X 480 maximum resolution. Will hold total of 1024K. Installing extra memory brings raises	
	maximum resolution to 1024 X 768.	\$129.00
DCS3655	One megabyte Tseng Labs VGA card. 1024K of RAM installed. Works in eight or sixteen bit slots. 1024 X 768 max resolution	
	with 256 colors.	\$159.00

# **Input/Output Devices**

Product Co	de Description	Price
DCS3670	Serial Mouse. Champ brand three button mouse attaches to nine or twenty five pin serial ports. Select switch for Microsoft or PC mouse compatibility. 360 dots per inch (DPI) resolution for smoother action. Includes mouse pad and holder to attach to side of PC when not in use. For any 1000 series machine,	
DCS3690	IBM or compatible with a serial port.  Serial Card for 1000, A, SX, SL, SL/2, TX, TL, TL/2, RL, TL/3, IBM  PC/XT, AT, compatibles. Takes a slot, provides a 25 pin serial port	\$ 49.00
DCS3710	out the back.  Dual Serial port card for 1000, A, SX, SL, SL/2, TX, TL, TL/2, IBM	\$ 29.00
DC33710	PC/XT, AT, compatibles.	\$ 49.00
DCS3750	Serial Card for 1000 EX, HX. Plugs onto one of the two plus style	
DCS3760	slots on the board that raises your system to 640K.  Dual Serial card for EX or HX.	\$ 49.00 \$ 69.00
DCS3775	PC Alert. This device fits in any of the 1000 series, IBM, or compatible and sounds an alarm at the first sign of overheating or power supply failure. Catch hard disk damaging problems before they happen. A must for network fileservers. Does not use an expansion slot.	\$ 49.00
DCS3800	Northgate Omnikey 101 Enhanced keyboard for 1000, A, SX, TX.	
DCS3900	Comes complete. Does not need keyboard adaptor.  Sideclock. Not a chip clock. This clock snaps onto base of any expansion board, such as your modem, extra memory board, etc.	\$119.00
DCS3910	For 1000, A, SX, SL, SL/2, 1200, IBM PC/XT, compatibles. Chip Clock, Snaps in under a ROM chip. For 1000, A, EX, HX, SX, SL, SL/2, 1200, IBM PC/XT, compatibles. May interfere with hard	\$ 49.00
	card.	\$ 32.00

## **Printer Cables, Switchboxes**

Product Co	de Description	Price
DCS4000	"Tandy style" six foot printer cable. Goes from card edge printer por on 1000, A, EX, HX, SX, SL, TL, SL/2, TL/2, and RL to the Centronics	rt
	interface on most printers	\$ 14.95
DCS4005	"Tandy Style" 15 foot printer cable	\$ 24.95
DCS4010	IBM style six foot printer cable. Goes from twenty five pin port of PC XT, AT, compatibles, TL/3, 1400's, 1500, 2800, to the Centronics inter	
		\$ 14.95
DCS4020	Centronics switchbox. Up to four computers to one printer or up to	
DCS4030	four printers to one computer. Centronics-Centronics cables below. Centronics to centronics cables. Six feet in length Connects	\$ 39.00
DCC-000		\$ 14.95

### Cables, Extenders, Switchboxes

Product Co	de Description	F	Price
DCS4035	Serial cable, 25 pin male to male. Six feet in length.	\$	14.95
DCS4040	Serial cable, 25 pin male to female. Six feet in length.	\$	14.95
DCS4050	Serial switchbox. Four way. All ports twenty-five pin female.	\$	39.00
DCS4060	Keyboard extension cable for 1000 SL, TL, SL/2, TL/2, 3000s, 4000s, IBM PC, XT, AT, compatibles. Six feet long.	¢	14.95
DCS4070	Keyboard extension cable for the RL, TL/3, IBM PS/2s. Six feet.	\$	14.95
DCS4080	Monitor extension cable for TTL or RBG monitors. Includes CM-5,		
	CM-11, high resolution monochrome, CGA, and EGA. Six feet long.	\$	14.95
DCS4090	Monitor extension cable for VGA monitors. Six feet long.		14.95

## **Software, Operating Systems**

Product Cod	Description Description	Pric	е
DCS4740	Hard Disk Tri-Pak. Ideal for the first time hard disk buyer. This program has file recovery, disk accelerator, and a DOS manager. Very user friendly.	\$ 24.0	00
DCS4800	SpinRite. The ultimate in Hard Disk analysis and testing software. Optimizes interleave, repairs damage, realigns disk. Our technician use it.	ns \$ 89.	.00
DCS4810	Fastback. The high speed backup to diskettes by Fifth Generation.	\$149	.00
DCS4890 DCS4900	MS DOS 5.0. Newest Version MS DOS 4.01. Can address up to 512 meg per hard disk partition. For 1000, A, SX, SL, SL/2, TX, TL, TL/2, 3000, 4000, all IBM and	\$ 69	.00
DCS5000	compatibles. Not for EX/HX.  MS DOS 3.3. Up to 32 meg per hard disk partition. Many other features. For all Tandys, IBM and compatibles. Works on EX/HX.	\$ 59. \$ 49.	

#### **Books**

Product Code	Description Price			
"truly a profe	essional piece of work that belongs on every Tandy 1000's owner's			
	bookshelf." -PCM October 1991			
DCS5100	Upgrading Your Tandy. 209 information packed pages on			
D000100	making the 1000, A, EX, HX, SX, TX, SL, TL, SL/2, TL/2, RL,			
	TL/3, and RLX more powerful and useful machines. Discusses			
	products not available from Tandy or available at lower prices			
	from others. Topics covered include hard and floppy drives,			
	graphics, slot expansion devices, and many more. \$ 19.99			

#### **Books** continued

The Books below are for all models of Tandy, IBM and compatibles

Product Cod	e Description	F	Price
DCS5200	How to Buy and Understand Computers	\$	19.95
DCS5300	Simple Computer Maintenance and Repair	\$	19.95
DCS5400	Ten(& more) Interesting uses for Your Home Computer	\$	19.95
DCS5500	Parent's Guide to Educational Software	\$	19.95
DCS5600	How to Understand and Find Software	\$	19.95
DCS5700	The Best Free Time-Saving Utilities for the PC	\$	19.95
DCS5800	How to Get Started With Modems	\$	19.95
DCS5900	How to Start a Business With a Computer	\$	19.95
DCS6000	101 Computer Business Ideas	\$	19.95
DCS6100	How to Get Started in Desktop Publishing	\$	19.95
DCS6200	Easy Guide to understanding the Power of MS-DOS		19.95

#### **Floppy Diskettes**

Product C	ode Description	Price
DCS6300	5.25" 360K Floppy Diskettes with Labels and Tabs	\$ .49/ea
DCS6400	5.25" 1.2 Meg Floppy Diskettes with Labels and Tabs	\$ 1.89/ea
DCS6500	3.5" 720K Diskettes with Lables	\$ . 89/ea
DCS6600	3.5" 1.44 Meg Diskettes with Labels	\$ 2.19/ea

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